UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,462	10/15/2003	Steven Kirk Donoho	124256.0401	7085

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CHANG, EDWARD

ART UNIT	PAPER NUMBER
3692	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/686,462	DONOHO ET AL.
	Examiner	**Art Unit**	
	EDWARD CHANG	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _February 4, 2009_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _42-72_ is/are pending in the application.

    4a) Of the above claim(s) _44-58, 60-62_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _42, 43, 59, 63-72_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

DETAILED ACTION

Status of Claims

1.   This action is in reply to the restriction election filed on 4^h of February 2009.

2.   Claims 1-41 are canceled.

3.   Claims 42-72 were newly added.

4.   Claims 42, 43, 59, and 63-72 were elected.

5.   Claims 42, 43, 59, and 63-72 are currently pending and have been examined.

Election/Restrictions

6.   Applicant's election with traverse of invention I4, claims 42, 43, 59, and 63-72 in the reply filed on February 4, 2009 is acknowledged. The traversal is on the ground(s) that "*examiner will not be seriously burdened by searching and considering the presently filed claims*." This is not found persuasive because each invention has a separate classification of its own therefore it is serious burden for examiner to do multiple number of separate searches. Even if they were classified together, each invention has formed a separate subject for inventive effort, and a separate field of search.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

7.   The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: in claim 43, applicant claims "neural network" but this is not mentioned n the specification.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9.   Claims **42~72** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "...*if so, generating...*" and in claim 70, "...*if the alert value is below*..." is vague and indefinite because it is not clear how the claim is bounded. What happens when undesired behavior is not identified or if alert value is above certain value? Please change the wording of the claim.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.   The factual inquiries set forth in Graham **v.** John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

Examiner's Note: The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant, in

preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

12.   Claims 42, 43, 63~66, and 69~72 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Kaplan (US 7,155,510 B1) in view of Sinclair et al. (hereinafter "Sinclair"); (US 2002/0138461 A1).

As per Claims 42 and 71:

Kaplan as shown discloses the following limitations:

- *receiving, on a periodic basis, data from at least one source, wherein the received data comprises a plurality of transactions relating to securities trading and a plurality of entities involved in securities trading, wherein the plurality of transactions and the plurality of entities are not predetermined to be related;* (See at least Column 4, Line 64+, "...gathering individual forecasts from a plurality individuals or other entities...")

- *accessing a scenario library to identify a detection algorithm for identifying a behavior of interest indicative of a risk to a brokerage or its investors;* (See at least Column 5, Line 18+, "...wide range of algorithms can be used and are desirably chosen...")

- *applying the detection algorithm to identify common elements between a plurality of the transactions and a plurality of the entities in the received data to determine whether the common elements are collectively indicative of the behavior of interest;* (See at least Column 5, Line 16+, "...processing algorithms that receive as inputs...")

- *determining, by a computing device, whether one or more relationships exist among the transactions and the entities that exhibit the common element; and* (See at least Column 3, Line 10+, "...generating a collective information for a particular item...")

However Kaplan does not specifically disclose following limitation. But Sinclair discloses the following limitations.

- *if so, generating an alert informing a user of the related transactions and entities that exhibit the common elements.* (See at least Page 2, Paragraph 0016+, "...provide a alerting mechanism...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Kaplan's method/system for forecasting information as taught by Smith's data health monitor to gather data and transform it to generate alerts when undesired behavior is detected. This would help the investor to efficiently and effectively manage and utilize the result generated.

As per Claims 43 and 72:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above. Furthermore, Kaplan also discloses the following limitations:

- *detection processing using neural networks.* (See at least Column 14, Line 46+, "...processing algorithm for generating collective forecasts...", neural networks = Artificial Intelligence (AI) = processing algorithm)

As per Claim 63:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above. Furthermore, Kaplan also discloses the following limitations:

- *prioritizing the one or more relationships, wherein the prioritizing is based on user defined logic and values; and* (See at least Column 1, Line 62+, "...sort through the information generated by the masses...", sorting=prioritizing, it is obvious that sorting is defined by logic and values)

However Kaplan does not specifically disclose following limitation. But Sinclair discloses the following limitations.

- *generating one or more alerts based on one or more of the prioritized relationships.* (See
  at least Page 2, Paragraph 0016+, "...provide an alerting mechanism...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the
invention was made to modify the Kaplan's method/system for forecasting information as taught
by Smith's data health monitor to gather data and transform it to generate alerts when undesired
behavior is detected. This would help the investor to efficiently and effectively manage and utilize
the result generated.

As per Claim 64:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above.
Furthermore, Kaplan also discloses the following limitations:

- *determining whether one or more relationships exist comprises prioritizing the determined
  relationships; and* (See at least Column 1, Line 62+, "...sort through the information
  generated by the masses...", sorting=prioritizing, it is obvious that sorting is defined by
  logic and values)

However Kaplan does not specifically disclose following limitation. But Sinclair discloses the
following limitations.

- *generating an alert comprises generation an alert only if a relationship having a
  predetermined priority is identified.* (See at least Page 2, Paragraph 0016+, "...provide an
  alerting mechanism...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the
invention was made to modify the Kaplan's method/system for forecasting information as taught
by Smith's data health monitor to gather data and transform it to generate alerts when undesired
behavior is detected. This would help the investor to efficiently and effectively manage and utilize
the result generated.

As per Claim 65:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above.
Furthermore, Kaplan also discloses the following limitations:

- *identifying any accounts associated with the determined transactions and entities that meet a set of user-defined criteria;* (See at least Column 3, Line 10+, "...generating a collective information for a particular item...")

However Kaplan does not specifically disclose following limitation. But Sinclair discloses the following limitations.

- *generating an alert informing the user of the identified accounts.* (See at least Page 2, Paragraph 0016+, "...provide an alerting mechanism...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Kaplan's method/system for forecasting information as taught by Smith's data health monitor to gather data and transform it to generate alerts when undesired behavior is detected. This would help the investor to efficiently and effectively manage and utilize the result generated.

As per Claim 66:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above.
Furthermore, Kaplan also discloses the following limitations:

- *identifying one or more accounts that meet a set of user-defined criteria for a current month but that did not meet the set of user-defined criteria for a previous month, wherein the accounts are associated with the determined transactions and entities;* (See at least Column 3, Line 10+, "...generating a collective information for a particular item...")

However Kaplan does not specifically disclose following limitation. But Sinclair discloses the following limitations.

- *generating an alert comprising the identified accounts.* (See at least Page 2, Paragraph

    0016+, "...provide an alerting mechanism...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention was made to modify the Kaplan's method/system for forecasting information as taught

by Smith's data health monitor to gather data and transform it to generate alerts when undesired

behavior is detected. This would help the investor to efficiently and effectively manage and utilize

the result generated.

As per Claim 69:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above.

Furthermore, Sinclair also discloses the following limitations:

- *providing one or more alert visualizations associated with the transactions and the*

    entities that exhibit the common elements to a user. (See at least Page 4, Paragraph

    0046+, "...electronic text message alert...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention was made to modify the Kaplan's method/system for forecasting information as taught

by Slater's automated banking system to identify household with multiple accounts. This would

help the investor to efficiently and effectively link multiple accounts and utilize the result

generated.

As per Claim 70:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above.

Furthermore, Sinclair also discloses the following limitations:

- *assigning a score to the determined relationships;* (See at least Page 4, Paragraph

    0051+, "...level z.sb.c..." = score)

- *determining an alert value associated with the alert based on the assigned score; and if the alert value is below a threshold value, automatically closing the alert.* (See at least Page 4, Paragraph 0051+, "...depending o the level $z.sub.c$ is predefined at for flagging...", flagging = alerting)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Kaplan's method/system for forecasting information as taught by Slater's automated banking system to identify household with multiple accounts. This would help the investor to efficiently and effectively link multiple accounts and utilize the result generated.

13.   Claims 59 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Kaplan in view of Sinclair in further view of Williams (US 2003/0083972 A1).

As per Claim 59:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above. Combination of Kaplan and Sinclair does not teach the following limitation. However, Williams discloses the following limitations:

- *one or more of the plurality of transactions involve one or more customers of a securities brokerage and securities representatives;* (See at least Page 10, Paragraph 0168+, "...investors...")

- *the behavior of interest comprises rapid switching of mutual funds; and* (See at least Page 28, Paragraph 0525+, "...market-timing switching money into mutual funds...")

- *the received data comprises fund purchase date, mutual fund sale date and solicitation records.* (See at least Page 6, Paragraph 0095~0099)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Kaplan's method/system for forecasting information as taught

by Williams' method for managing investment to analyze behaviors of funds such as mutual funds. This would help the investor to efficiently and effectively manage and utilize the result generated.

14.   Claims 67 and 68 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Kaplan in view of Sinclair in further view of Slater et al. (hereafter "Slater"); (US 4,114,027).

As per Claim 67:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above. Combination of Kaplan and Sinclair does not teach the following limitation. But, Slater discloses the following limitations:

- *identifying a household, having a plurality of associated accounts, wherein the household meets a set of user-defined criteria, wherein the household is associated with one or more of the determined transactions and entities; wherein none of the associated accounts individually meet the set of user-defined criteria; and* (See at least Column 7+, Line 48+, "...identifies of data, account...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Kaplan's method/system for forecasting information as taught by Slater's automated banking system to identify household with multiple accounts. This would help the investor to efficiently and effectively link multiple accounts and utilize the result generated.

In addition, Kaplan does not specifically disclose following limitation. But in addition, Sinclair discloses the following limitations.

- *generating an alert comprising the identified household.* (See at least Page 2, Paragraph 0016+, "...provide an alerting mechanism...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Kaplan's method/system for forecasting information as taught by Smith's data health monitor to gather data and transform it to generate alerts when undesired behavior is detected. This would help the investor to efficiently and effectively manage and utilize the result generated.

As per Claim 68:

Combination of Kaplan and Sinclair discloses the limitations as shown in the rejections above. Combination of Kaplan and Sinclair does not teach the following limitation. But, Slater discloses the following limitations:

- *identifying a first set of households, wherein each household is associated with one or more accounts, wherein each household meets a set of user-defined criteria, wherein none of the accounts associated with the household individually meet the set of user-defined criteria, wherein each household in the first set is associated with one or more of the determined transactions and entities; and* (See at least Column 7+, Line 48+, "...identifies of data, account...")

- *identifying from the first set of households, a second set of households comprising households that did not meet the set of user-defined criteria in a previous month.* (See at least Column 7+, Line 50+, "...one character identifies...")

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the Kaplan's method/system for forecasting information as taught by Slater's automated banking system to identify household with multiple accounts. This would help the investor to efficiently and effectively link multiple accounts and utilize the result generated.

Conclusion

10.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11.   A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Edward Chang** whose telephone number is **571.270.3092.** The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Kambiz Abdi** can be reached at **571.272.6702.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair <http://pair-direct.uspto.gov >. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

Any response to this action should be mailed to:

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or faxed to **571-273-8300**.

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May 23, 2009
/Edward Chang/ Examiner, Art Unit 3692

/Susanna M. Diaz/
Primary Examiner, Art Unit 3692